

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as indicated hereafter. It is believed the following amendments add no new matter to the present application:

Please amend the paragraph starting on page 7, line 15 as follows:

FIG. 7 is a circuit diagram of one of a number of embodiments of a transistor circuit 700. Transistor circuit 700 comprises circuit node 702, circuit element 704, transistor device 706, impedance element 708, and switch terminal 710. Transistor device 706 comprises a first terminal 712, a second terminal 714, a third terminal 716, and a bulk 718 (not shown). Typically, bulk 718 is connected to an AC ground. First terminal 712 may be connected to switch terminal 710 through impedance element 708. Second terminal 714 of transistor device 706 may be connected to circuit element 704, which is further connected to circuit node 702. Third terminal 716 may be connected to ground. In other embodiments where a differential switch is implemented, third terminal 716 may be connected to another transistor circuit configured similar to transistor circuit 700.

Please amend the paragraph starting on page 8, line 25 as follows:

As stated above, in prior art transistor circuits for implementing a switch, the switch node that generates the bias voltage for the transistor device is viewed as an electrical AC ground, and therefore, removes the capacitance (capacitor 402, FIG. 4) between terminal 114 and terminal 116 (FIG. 4). Without this capacitance, the overall parasitic capacitance is increased. As illustrated in FIG. 9, the presence of impedance element 708 in transistor circuit 700 creates an AC open at switch terminal 710 instead of an AC short as in the prior art. Therefore, capacitor ~~700~~ 800 and ~~702~~ 802 are connected in series, and can be simplified to a capacitor 900 having a capacitance (C_{series}) defined by the following equation:

$$C_{series} = \frac{(C_{1,3})(C_{1,2})}{C_{1,3} + C_{1,2}}$$

(Equation 1)

Please amend the paragraph starting on page 9, line 11 as follows:

FIG. 11 is a circuit diagram of another of a number of embodiments of a transistor circuit 1100. Transistor circuit 1100 comprises circuit node 1102, circuit element 1104, transistor device 1106, switch terminal 1108, and inverter circuit 1102. Transistor device ~~100~~ 1106 comprises a first terminal 1112, a second terminal 1114, a third terminal 1116, and a bulk 1118 (not shown). First terminal 1112 may be connected to switch terminal 1108. In other embodiments, first terminal 1112 may be connected to switch terminal 1108 through an impedance element as described above. Second terminal 1114 of transistor device 1106 may be connected to circuit element 1104, which is further connected to circuit node 1102. In other embodiments where a differential switch is implemented, third terminal 1116 may be connected to another transistor circuit configured similar to transistor circuit 1100. Third terminal 1116 is also connected to inverter circuit 1102 by connection 1119.

Please amend the paragraph starting on page 13, line 1 as follows:

FIG. 15 is a simplified circuit diagram of the portion of the diagram of FIG. 14 within block 1420. Block 1420 may reduce to a capacitor 1502 and a resistor 1504. FIG. 16 is a simplified circuit diagram of the entire diagram of FIG. 14 for transistor circuit 1200, including both blocks 1410 and 1420. Transistor circuit 1200 may reduce to a capacitor 1600, a resistor 1602. Where transistor devices 1210 and 1220 are fabricated equivalently, we can assume that the electrical characteristics and the corresponding parasitic capacitance and resistance for transistor devices 1210 and 1220 are equivalent. Thus, the overall parasitic capacitance (capacitor 1502) and resistance (resistor 1504) of transistor device 1210 may be compared to the overall parasitic capacitance (capacitor 1600) and resistance (resistor 1602) of transistor device 1210 combined with transistor device 1220. The relationship between the overall parasitic capacitance (capacitor 1502) of transistor device 1210, defined as C_{1502} , to the overall parasitic capacitance (capacitor 1600) of transistor device 1210, defined as C_{1600} , may be summarized by the following equation,:

$$C_{1600} = 2 * C_{1502}$$

(Equation 2)

The relationship between the overall parasitic resistance (resistor 1504) of transistor device 1210, defined as R_{1504} , to the overall parasitic resistance (~~capacitor~~ resistor 1602) of transistor device 1210, defined as R_{1602} , may be summarized by the following equation:

$$R_{1602} = R_{1504} / 3$$

(Equation 2)